

A Supplemental Check List of Indiana Mollusca, with Localities and Notes.

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PREFACE.

In the 27th Annual Report of the Department of Geology and Natural Resources of Indiana, 1902, I published a Check List of Indiana Mollusca with localities. Since that time I have continued collecting and have added 40 species and 36 varieties to the former list, many of which are new to science.

In the following pages I give the names of these additional species, together with the locality in which each was taken. A few species are included on the authority of others, and in those cases the locality is followed with the name of the collector, in parentheses. In most of these cases I have received specimens from the collector.

I include the names of two species, viz., *Helicina occulta* Say and *Lymnæa galbana* Say, neither of which are known to be now living in the State but are found sub-fossil in the marl beds of Posey County, which is the type locality of "*H*" *occulta*. "*H*" *occulta* Say ranges from western Pennsylvania to Minnesota, south to Tennessee. Distribution markedly discontinuous and local.—Pilsbry and Johnson: Catalogue American Land Shells.

"*L*" *galbana* Say is not found at present farther south than the Transition life zone, though it ranges north well into the Boreal life zone. The marl deposits, however, show that in post glacial times it ranged south in Indiana (Upper Austral) and extended as far north as the arctic circle. It is exceedingly abundant in the marl deposits of New Jersey, New York, Michigan and Indiana, and must have been at one time one of the commonest of the smaller *Lymnæas*.—Baker, *Lymnæaidæ* of North America. These two species having been heretofore published are here included because they were not printed in my former list. They are not included in the total number.

*Rolling Prairie, Laporte County, Ind.,
December 1, 1914.*

CHECK LIST.

Helicina occulta Say.

Sub-fossil. New Harmony and Grand Chain, Posey County, abundant.

Vallonia excentrica Sterki.

Laporte, Waterford, Little Kankakee and Hunt's Lake, Laporte County; Bass Lake, Starke County; Walkerton, St. Joseph County.

Polygyra albolabris dentata (Tryon).

Mitchell, Lawrence County.

Polygyra multilineata algonquinensis Nason.

Marsh near Lake Maxinkuckee, Marshall County.

Polygyra tridentata discoidea Pilsbry.

Aurora, Ohio County; Charlestown Landing, Clark County; Leavenworth, Crawford County; Cannelton, Perry County; Mt. Vernon, Posey County. These localities are all on the Ohio River.

Vertigo ventricosa (Morse).

Marsh west side of Lake James, Steuben County.

Vertigo ventricosa elatior Sterki.

Marsh west side of Lake James, Steuben County.

Mesomphix laevigata perlævis (Pils.).

Laurel and Brookville, Franklin County; Lawrenceburg, Dearborn County. (A. C. Billups.)

Vitrea multidentata Binney.

Stoners Woods, Wills Township, Laporte County.

Enconulus chersinus dentatus Sterki.

Wyandotte, Crawford County; New Albany, Floyd County; and Medora, Jackson County.

Enconulus chersinus polygyratus Pils.

Bass Lake, Starke County.

Gastrodonta gularis (Say).

"The Knobs" one mile southwest of New Albany, Floyd County. Two specimens not quite full grown. Pilsbry writes that these are the first specimens he has seen from north of the Ohio River, and that this very late northern form is the *typical gularis*.

Limax maximus L.

Indianapolis. Rare.

Limax flavus color form *maculatus* Kal.

New Albany, Floyd County. Abundant.

Pyramidula cronkheitei albina (Mse. Ckll).

Little Kankakee near Laporte pumping station, Laporte County.

Succinea indiana Pils.

New Harmony, Posey County. I found this species in 1904 just south of New Harmony on the hillside facing the west between the marl cliffs and the highway. This place is less than a mile from the house where Thomas Say, the father of American Conchology, lived while at New Harmony.

Succinea ovalis optima Pils.

Waterford, Laporte County; Winona, Starke County; Lafayette, Tippecanoe County; Hillsdale, Vermillion County; Vawter Park, Kosciusko County. All of the Indiana specimens in my cabinet of *Succinea ovalis* was submitted to Dr. H. A. Pilsbry and he writes "that all of the Indiana specimens I have seen are *Succinea ovalis optima* Pils. Probably *typical ovalis* does not occur in the State, though it may be in the northern border. Until you find a colony of the thinner, greenish form, all of the smaller size, you may safely call all Indiana specimens *optima*. The *typical ovalis* is what is described by Binney and others as *totteniana*; the latter being a synonym."

Succinea aurea Lea.

Jeffersonville, Clark County. Rare.

Succinea avara form *vermeta* Say.

Tippecanoe Lake, Kosciusko County; Lake Maxinkuckee, Marshall County; Stone, Pine and Clear Lakes, Laporte County.

Succinea retusa magister Pils.

Carr's Slough near Brookston, White County.

Succinea retusa peoriensis Wolf.

Waterford, Laporte County.

Lymnaea columella casta Lea.

Bass Lake, Starke County; Lily and Stone Lakes, Laporte, Laporte County.

Lymnaea columella chalybea Gould.

Grassy Creek, Kosciusko County; Calumet River at Millers, Lake County. The typical *columella* is found at "The Channel", Laporte, Laporte County.

Lymnaea elodes Say.

Millers and Roby, Laporte County (Baker); Tippecanoe Lake, Kosciusko County; Brookston and Carr's Slough, White County; Laporte, Laporte County; Cypress Swamps, Knox County.

Lymnaea exilis Lea.

George Lake, Lake County (Woodruff).

Lymnaea dalli Baker.

Lake James and marsh west side of Lake James, Steuben County; Lake Wawasee, Kosciusko County; Lake Maxinkuckee, Marshall County; Little Kankakee River and Waterford, Laporte County. Abundant.

Lymnaea galbana Say.

Sub-fossil. Three-fourths mile southwest of Stewartsville, Posey County; one and one-half miles northwest of Petersburg, Pike County; marl deposits, New Harmony, Posey County.

Lymnaea ohrussa exigua Lea.

Lake Maxinkuckee and Lost Lake, Marshall County; Lily, Clear and Stone Lakes, Laporte County; Little Kankakee River, Laporte County; marsh west side, and spring east side of Lake James, Steuben County.

Lymnaea parva Lea.

Bass Lake, Starke County; spring east side Lake James, Steuben County; Tippecanoe Lake, Kosciusko County; Little Kankakee, Laporte County.

Lymnaea parva sterkii Baker.

Cypress swamps, Knox County; Lake Maxinkuckee, Marshall County.

Lymnaea humilis modicella Say.

Lily Lake, Clear Lake, Pine Lake, Hudson Lake, Lost Lake, Waterford, all in Laporte County; Walkerton, St. Joseph County; Round Lake, Whitley County; Calumet River near Millers, marl deposits (Stewartsville, Posey County; west of Mounds, Gibson County; Fuller & Clapp).

Lymnaea humilis rustica Lea.

Marsh west side of Lake James, Steuben County.

Lymnaea reflexa walkeri Baker.

George Lake, Lake County (Baker). Hessville, Lake County (Walcott).

Lymnaea palustris blatchleyi Baker.

Turkey Lake (Lake Wawasee), and Tippecanoe Lake, Kosciusko County.

Lymnaea danielsi Baker.

Lake Maxinkuckee, Marshall County. Abundant.

Planorbis dilatatus Gould.

Blue Lake, Whitley County.

Planorbis crista cristatus Drap.

Marsh west side of Lake James, Steuben County.

Planorbis trivolvis macrostomus Whiteaves.

Millers, Lake County.

Segmentina crassilabris Walker.

Vincennes; cypress swamps, Knox County; Walkerton, St. Joseph County; Brookston, White County.

Ancylus fucus engraptus Pils.

Head of Calumet River at Millers, Lake County.

Ancylus walkeri Pilsbry & Ferriss.

Pond at "Camp Colfax", Lily Lake and Clear Lake, all near Laporte, Laporte County.

Ancylus kirklandi Walker.

Head of Calumet River at Millers, Lake County; Lake Maxinkuckee, Marshall County.

Gundlachia meekiana Stimpson.

Marsh west side of Lake James, Steuben County.

Pleurocera subulære intensum Reeve.

Lake Maxinkuckee, Marshall County.

Pleurocera troostii Lea.

Wabash River, East Mt. Carmel, Knox County; "The Chains", Posey County.

Anculosa trilineata viridis Lea.

Ohio River, New Albany.

Somatogyrus strengi Pilsbry & Walker.

Wabash River at "The Chains", Posey County. (Hinkley.)

Somatogyrus currieranus Lea?

Wabash River at the Old Dam below New Harmony. (Hinkley.)

Pomatiopsis cincinnatiensis Lea.

Michigan City and Waterford, Laporte County.

Pyrgulopsis wabashensis Hinkley.

Wabash River at the "Old Dam" below New Harmony and "The Chains", Posey County. (Geo. Hinkley.)

Valvata bicarinata connectans Walker.

Lake Michigan near Michigan City.

Valvata bicarinata perdepressa Walker.

Lake Michigan at Michigan City, and at Millers, Lake County.

Valvata lewisii Currier.

Lake Wawasee, Tippecanoe Lake, and Grassy Creek, Kosciusko County.

Anodontooides modestus Lea.

Little Kankakee River five miles east of Laporte, near the city pumping station.

Unio gibbosus delicatus Simpson.

Tippecanoe River, Carroll County.

Sphaerium tenue Prime.

Lake Maxinkuckee, Marshall County. (Evermann.)

Sphaerium lineatum Sterki.

Lake Wawasee, Kosciusko County.

Sphaerium ohioense Sterki.

Blue River, Wyandotte, Crawford County; Ohio River, Canalton.

Sphaerium emarginatum Prime.

Lake Michigan, Pine, Laporte County.

Sphaerium emarginatum Prime.

Lake Michigan, Pine and Millers, Lake County; Michigan City, Laporte County.

Musculium ryckholti Norm.

Lake Maxinkuckee, Marshall County. (Evermann.)

Musculium jayanum Prime.

Long Lake at Millers, Lake County; Pond "Camp Colfax", Laporte County.

Musculium lacustre Müller.

Pond at "Camp Colfax", Laporte, and pond one mile west of Laporte, Laporte County.

Musculium sphaericum Anthony.

Pond one mile west of Laporte, pond at "Camp Colfax", Pine Lake; Clear Lake, "The Channel"; Lily Lake, all near Laporte, Laporte County; Saugany Lake, Rolling Prairie, Laporte County.

Musculium orbiculare Sterki.

Hammond, Lake County; Stone Lake near Laporte, Laporte County. Rare.

Musculium parvum Sterki.

Hammond, Lake County. Rare.

Pisidium compressum levigatum Sterki.

Calumet River and pond near Millers, Lake County; Bass Lake, Starke County; Lake Wawasee, Kosciusko County; Lake Maxinkuckee, Marshall County.

Pisidium compressum rostratum Sterki.

Clear Lake, Steuben County.

Pisidium walkeri Sterki.

Culver Inlet to Lake Maxinkuckee, Marshall County.

Pisidium mainense Sterki.

Clear Lake, Steuben County; Lake Maxinkuckee. (Evermann.)

Pisidium trapezoideum Sterki.

Marsh west side of Lake James, Steuben County.

Pisidium noveboracense quadrulum Sterki.

Bass Lake, Starke County.

Pisidium idahoense indianense Sterki.

Lake Maxinkuckee, Marshall County. Abundant.

Pisidium punctatum simplex Sterki.

"The Chains", Wabash River, Posey County. (Hinkley.)

Pisidium abditum subrotundum Sterki.

Long Lake, Millers, Lake County; pond at "Camp Colfax", Laporte, Laporte County; Lake Maxinkuckee, Marshall County.

Pisidium pauperculum crystalense Sterki.

Lake Maxinkuckee, Marshall County; Lake Wawasee, Kosciusko County.

Pisidium milium Held.

Lake Maxinkuckee, Marshall County. (Evermann.)

Pisidium glabellum Sterki.

Lily Lake, Laporte County; Lake Wawasee, Kosciusko County.

ADDITIONAL LIST OF LOCALITIES.

Since the publication of my former Check List in 1902 I have added many localities to the list, and I take this as an opportune time to put those of the rarer species on record and thus be of some aid to future workers.

Vallonia costata (Müll.).

Laporte, Laporte County.

Polygyra leporina (Gld.).

Princeton, Gibson County; Vincennes, Knox County.

Polygyra stentotrema (Fer.).

Charlestown Landing, Clark County; Cannelton, Perry County.

Bifidaria procera Gld.

Upton and New Harmony, Posey County. (Hinkley.)

Bifidaria corticaria (Say).

Mitchell; Vincennes; New Albany; Shoals, Martin County.

Vertigo Gouldi Binn.

Clear, Pine and Stone Lakes, Laporte, Waterford, Laporte County.

Omphalina friabilis (W. G. B.).

English and Wyandotte, Crawford County; Grand Chain, Posey County; Medora, Jackson County; Vincennes, Knox County.

Omphalina laevigata (Pfr.).

Madison, Jefferson County; Charlestown Landing, Clark County; Medora, Jackson County; Wyandotte, Crawford County.

Omphalina inornata (Say).

Charlestown Landing, Clark County.

Vitrea capsella (Gld.).

Vincennes, Knox County.

Zonitoides milium (Morse).

Little Kankakee, five miles east of Laporte.

Gastrodonta ligera (Say).

New Albany, Floyd County; cypress swamps, Knox County.

Limax flavus L.

Charlestown, Clarke County; Indianapolis.

Punctum pygmaeum (Drap.).

Wyandotte, Crawford County; New Albany, Floyd County.

Sphyradium edentulum (Drap.).

Corydon, Harrison County.

Carychium exile H. C. Lea.

Lake James, Steuben County; Waterford, Laporte County.

Goniobasis depygis Say.

Blue River, Wyandotte, Crawford County.

Goniobasis indianensis Pilsbry.

Silver Creek, Floyd County.

Amnicola limosa porata Say.

Lake Maxinkuckee, Marshall County; Millers, Lake Michigan.

Amnicola walkeri Pils.

Lake James, Steuben County; Lake Maxinkuckee, Marshall County.

Amnicola cincinnatiensis Anthony.

Upton, Posey County. (Hinkley.)

Amnicola emarginata Kuster.

The Chains, Posey County. (Hinkley.)

Paludestrina nickliniana Lea.

Little Kankakee River at the old mill dam five miles east of Laporte, Laporte County. Abundant.

Pomatiopsis lapidaria Say.

New Albany; Waterford, Laporte County.

Valvata bicarinata Lea.

Cedar Lake, Lake County.

V. bicarinata normalis Walker.

Cedar Lake, Lake County.

Pisidium virginicum Bourg.

Lake Maxinkuckee, Marshall County; Lake James, Steuben County; Lake Michigan at Millers and Pine.

Pisidium danielsi Sterki.

Clear Lake, Laporte, Laporte County.

Pisidium politum Sterki.

Bass Lake, Starke County; Lake Maxinkuckee, Marshall County.

Pisidium vesiculare Sterki.

Lake Maxinkuckee, Marshall County.

Lampsilis lienosus Con.

Eel River, North Manchester.

Quadrula cooperiana Lea.

Ohio River near Cannelton.